

Amendments to the claims:

This listing of claims will replace all prior versions and listing of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) For use in a viscous material dispenser, a piston comprising
 - a. unitary body of circular cross section including
 - i. spaced face and back surfaces;
 - ii. an axial bore extending between the surfaces
 - iii. the face surface including a nose section surrounding said bore and an annular recess section surrounding the nose section, the recess section being ~~perimeteral~~ perimetrical surrounded by a lip;
 - iv. a ~~perimeteral~~ perimetral surface extending axially from the face to the back surface; and
 - v. the ~~perimeteral~~ perimetral and face surfaces together defining a ~~perimeteral~~ perimetral lip around the concave section, the lip being of tapering thickness tapering from its thickest part at a location nearest the back surface forwardly to a thin termination at a juncture of the face and ~~perimeteral~~ perimetral surfaces
 - b. an annular disc positioned in the annular recess section; and
 - c. the disc including a peripheral surface coactable with the lip to transmit comprising forces against the lip and thence against a surrounding wall of a cylinder where the piston is in use.
2. (Original) The pistons of claim 1 wherein the lip flares outwardly as it intends in a forward direction relative to the face and back surfaces.

3. (Currently Amended) For use in a viscous material dispenser, a piston comprising a unitary body of circular cross section including:

- a. spaced face and back surfaces;
- b. an axial bore extending between the surfaces;
- c. the bore including a counterbore extending from the back surface toward the face surface;
- d. the bore includes a shoulder, the shoulder being an annular drive section circumscribing the bore and adapted to engage a push rod in force transmitting relationship;
- e. the face surface including a nose section surrounding said bore and an annular recess section surrounding the nose section;
- f. a perimeteral surface extending axially from the face to the back surface;
- g. the ~~perimeteral~~ perimetral and face surfaces together defining a ~~perimeteral~~ perimetral lip around the recess section, the lip being of tapering thickness tapering from its thickest part at a location nearest the back surface forwardly to a thin termination at a juncture of the face and perimeteral surfaces; and
- h. an annular disc disposed in the recess section and engageable when in use with the lip, in outward force transmitting relationship to press the lip against an internal wall of a surrounding dispenser tube.

4. (Original) The piston of claim 3 wherein the lip flares outwardly in a direction from said location toward said juncture.

5. (Original) The piston of claim 3 wherein the piston is a plastic piston.

App. Serial No.:
10/578,079

6. (Original) The piston of claim 5 wherein the plastic is Delran.

7. (Currently Amended) For use in a viscous material dispenser, a piston assembly comprising;

- a. a main body having an axial bore for receipt of a push rod;
- b. the body having a face including an annular recess and a lip surrounding the recess, said recess being tapered and spaced axially from the face of the body and increasing in depth as the recess extends to a perimeter of said body;
- c. a camming washer disposed at least in the part in the recess having a relatively small height compared to its diameter, the washer including a ~~perimeteral~~ perimetral camming surface engageable with the lip; and,
- d. the body and washer being connected together for limited relative axial movement when the piston assembly is advanced against material in a cartridge to dispense such material,

such relative movement being effective to cause the camming surface to force the lip outwardly into tight engagement with a wall of such cartridge[.] wherein said camming washer includes an outwardly tapering thickness such that said washer is thickest at its perimeter.

8. (Original) In combination, the piston assembly of claim 7 and a motor drive push rod.

9. (Cancelled) ***without prejudice or disclaimer.***

10. (Previously Presented) The piston assembly of claim 7, wherein said camming washer is made from a metal.

11. (Previously Presented) The piston assembly of claim 7, wherein said camming washer is made from a polymer.

12. (Previously Presented) The piston assembly of claim 7 further including an elastic member placed between said camming washer and said body.

13. (Previously Presented) The piston of claim 1, wherein said annular disc includes an outwardly tapering thickness such that said disc is thickest at its perimeter.

14. (Previously Presented) The piston of claim 1, wherein said annular disc is made from a metal.

15. (Previously Presented) The piston of claim 1, wherein said annular disc is made from a polymer.

16. (Previously Presented) The piston of claim 1 further including an elastic member placed between said annular disc and said body.

17. (Previously Presented) The piston of claim 3, wherein said annular disc includes an outwardly tapering thickness such that said disc is thickest at its perimeter.

18. (Previously Presented) The piston of claim 3, wherein said annular disc is made from a metal.

19. (Previously Presented) The piston of claim 3, wherein said annular disc is made from a polymer.

20. (Previously Presented) The piston of claim 3 further including an elastic member placed between said annular disc and said body.

21. (Previously Presented) The piston of claim 7, wherein said lip is continuous.

22. (New) A viscous material dispenser having a piston assembly comprising:

a body comprising a tapered recess for receiving a camming disc, the tapered recess being spaced axially from a face of the body and increasing in depth as the recess extends to a perimeter of said body;

first and second annular tapered surfaces located on said camming disc, said first annular tapered surface originating at a first location spaced axially from a central axis of said camming disc, increasing the cross-sectional thickness of the first annular tapered surface laterally as it extends to a perimeter of the camming disc, said second annular tapered surface located about said perimeter of said camming disc, a smaller diameter of the second annular tapered surface being in contact with the recess during assembly and tapering to a relatively larger diameter extending away from said recess.

23. (New) The viscous material dispenser of claim 22, wherein said first annular taper of said camming disc includes an outwardly tapering thickness such that said camming disc is thickest at its perimeter.

24. (New) A viscous material dispenser having a piston assembly comprising:

a body having a tapered recess for receiving a camming disc, the tapered recess being spaced axially from a face of the body and increasing in depth as the recess extends to a perimeter of said body;

first and second annular tapered surfaces located on said camming disc, said first annular tapered surface originating at a first location spaced axially from a central axis of said camming disc, increasing the cross-sectional thickness of the first annular tapered surface laterally as it extends to the first annular tapered surface's thickest point at a perimeter of the camming disc, said second annular tapered surface located about said perimeter of said camming disc, a smaller diameter of the second annular tapered surface being in contact with the recess during assembly and tapering to a relatively larger diameter extending away from said recess; and

a plurality of elastic members positioned between said recess and said camming disc such that compression of said elastic members results in a camming of said second annular tapered surface against an annular lip of said body resulting in an outward force transmitting relationship with said annular lip and an internal wall of a surrounding dispenser tube.